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COMMITTEE ON THE PEACEFUL USES
OF OUTER SPACE

REPORT ON THE THIRTY-SIXTH SESSION

I. INTRODUCTION

1. The Committee on the Peaceful Uses of Outer Space held its thirty-sixth session at United Nations Headquarters from 7 to 18 June 1993. The officers of the Committee were as follows:

Chairman: Mr. Peter Hohenfellner (Austria)

Vice-Chairman: Mr. Aurel Dragos Munteanu (Romania)

Rapporteur: Mr. Edgard Telles Ribeiro (Brazil)

The verbatim records of the Committee's meetings are contained in documents A/AC.105/PV.379-___.

Meetings of subsidiary bodies

2. The Scientific and Technical Subcommittee held its thirtieth session at United Nations Headquarters from 16 to 26 February 1993 under the chairmanship of Mr. John H. Carver (Australia). The report of the Subcommittee was issued as document A/AC.105/543.

3. The Legal Subcommittee held its thirty-second session at United Nations Headquarters from 22 March to 8 April 1993 under the chairmanship of Mr. Václav Mikulka (Czechoslovakia). The report of the Subcommittee was issued as document A/AC.105/544. The summary records of the Subcommittee's meetings are contained in documents A/AC.105/C.2/SR.562-571.

Adoption of the agenda

4. At its opening meeting, the Committee adopted the following agenda:

1. (a) Adoption of the agenda.

(b) Election of a Rapporteur.

2. Statement by the Chairman.

3. General exchange of views.

4. Ways and means of maintaining outer space for peaceful purposes.

5. Report of the Scientific and Technical Subcommittee on the work of its thirtieth session.

6. Report of the Legal Subcommittee on the work of its thirty-second session.

7. Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space.

8. Spin-off benefits of space technology: review of current status.

9. Other matters.

10. Report of the Committee to the General Assembly.

Membership and attendance

5. In accordance with General Assembly resolutions 1721 E (XVI) of 20 December 1961, 3182 (XXVIII) of 18 December 1973, 32/196 B of 20 December 1977 and 35/16 of 3 November 1980, and with decision 45/315 of 11 December 1990, the Committee on the Peaceful Uses of Outer Space was composed of the following Member States: Albania, Argentina, Australia, Austria, Belgium, Benin, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kenya, Lebanon, Mexico, Mongolia, Morocco, Netherlands, Niger, Nigeria, Pakistan, Philippines, Poland, Romania, Russian Federation, Sierra Leone, Spain, Sudan, Sweden, Syrian Arab Republic, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela, Viet Nam and Yugoslavia.

6. At its 379th, 380th, 382nd, 384th and 385th meetings, the Committee decided to invite, at their request, the representatives of Azerbaijan, Bolivia, Cuba, the Holy See, Kazakhstan, Libyan Arab Jamahiriya, Nicaragua, Peru, Portugal, Senegal, Slovakia and Turkey, to attend the session of the Committee and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

7. Representatives of the United Nations Department of Development Support and Management Services, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Atomic Energy Agency (IAEA) and the International Telecommunication Union (ITU) also attended the session.

8. Representatives of the Committee on Space Research (COSPAR) of the International Council of Scientific Unions (ICSU), the European Space Agency (ESA), the International Telecommunications Satellite Organization (INTELSAT), the International Aeronautical Federation (IAF), the International Law Association (ILA) and the International Society for Photogrammetry and Remote Sensing (ISPRS) also attended the session.

9. A list of representatives attending the session is contained in document A/AC.105/XXXVI/INF/1.

Proceedings

10. Having been informed that the Committee's Rapporteur, Mr. Edmundo Sussumu Fujita (Brazil), had taken up other professional engagements, the Committee, at its 379th meeting, elected Mr. Edgar Telles Ribeiro (Brazil) as its new Rapporteur.

11. At the 379th meeting, the Chairman of the Committee, in his opening statement, summarized the work of the Committee's subsidiary bodies and outlined the work before the Committee. He stressed the need to increase international cooperation in the peaceful uses of outer space and to ensure that the benefits of such cooperation were shared by all countries and all people (see A/AC.105/PV.379).

12. At the 383rd meeting, the Chief of the Office for Outer Space Affairs of the Secretariat made a statement reviewing the work of the Office during the previous year and the documentation before the Committee.

13. At its 379th to 383rd meetings, from 7 to 9 June 1993, the Committee held a general exchange of views, in the course of which statements were made by the representatives of Argentina, Australia, Austria, Brazil, Bulgaria, Canada, Chile, China, Colombia, France, Germany, Hungary, India, Indonesia, the Islamic Republic of Iran, Japan, Kazakhstan, Mexico, Nigeria, Pakistan, Portugal, Romania, the Russian Federation, Sierra Leone, Senegal, Sweden, Ukraine, the United Kingdom and the United States (see A/AC.105/PV.379-383).

14. The representatives of COSPAR, ESA, IAF, ILA, INTELSAT and ISPRS, as well as the Expert on Space Applications of the Office for Outer Space Affairs, also made statements (see A/AC.105/PV.379, 380 and 384).

15. After considering the various items before it, the Committee, at its ___th meeting, on __ June 1993, adopted its report to the General Assembly containing the recommendations and decisions set out below.

II. RECOMMENDATIONS AND DECISIONS

A. Ways and means of maintaining outer space for peaceful purposes (agenda item 4)

16. In accordance with paragraph 30 of General Assembly resolution 47/67, the Committee on the Peaceful Uses of Outer Space continued its consideration, as a matter of priority, of ways and means of maintaining outer space for peaceful purposes.

17. The Committee was of the view that the request of the General Assembly, in its resolution 47/67, to the Committee to consider, as a matter of priority, ways and means of maintaining outer space for peaceful purposes and to report thereon, showed the concern felt by the international community and the need to promote international cooperation in the peaceful uses of outer space, taking into account the needs of the developing countries. The Committee, through its work in the scientific, technical and legal fields, had an important role to play in ensuring that outer space was maintained for peaceful purposes. It was the firm belief of the members of the Committee that developments that would strengthen the role of the Committee in maintaining outer space for peaceful purposes should continue. The Committee had responsibilities relating to the strengthening of the international basis for the peaceful exploration and uses of outer space, which could cover, among other matters, further development of international space law, including, as appropriate, the preparation of international agreements governing various practical peaceful applications of space science and technology. Strengthening international cooperation in the peaceful exploration and use of outer space also implied the need for the Committee itself to improve, whenever necessary, the methods and forms of its work.

18. The Committee agreed that a good way to broaden and deepen international cooperation in outer space was through international and regional programmes undertaken as part of international and regional endeavours such as International Space Year and the Second Space Conference of the Americas.

19. While recognizing the competence of the Conference on Disarmament on questions relating to the prevention of an arms race in outer space, some delegations expressed the view that the Committee should complement and contribute to the work being done in the Conference and the First Committee, considering that the peaceful and non-peaceful uses of outer space were inseparably linked and that the scope of this priority agenda item included such subjects as transparency and confidence-building measures. Those delegations therefore expressed the view that the Committee should be kept informed of the progress made by the Conference on such questions and that working contacts should be established between the two bodies. Other delegations expressed the view that the Committee had been created 35 years ago to address international cooperation in the peaceful uses of outer space, with a clear separation between its role and that of other United Nations forums dealing with disarmament, and that contacts between the Committee and disarmament bodies would not be useful. Those delegations expressed the view that the Committee should contribute to maintaining outer space for peaceful purposes by strengthening the scientific and technical content of its work, by promoting broader and deeper cooperation

by all countries in outer space activities and by revitalizing its work and that of its subcommittees.

B. Report of the Scientific and Technical Subcommittee on the work of its thirtieth session

Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (agenda items 5 and 7)

20. The Committee considered jointly agenda items 5 and 7, entitled "Report of the Scientific and Technical Subcommittee on the work of its thirtieth session" and "Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space", respectively.

1. Report of the Scientific and Technical Subcommittee on the work of its thirtieth session

21. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on the work of its thirtieth session (A/AC.105/543), covering the results of its deliberations on the items assigned to it by the General Assembly in its resolution 47/67.

2. Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space

(a) Working Group of the Whole

22. The Committee noted with satisfaction that, in accordance with General Assembly resolution 47/67, the Subcommittee had given priority consideration to the item entitled "Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space" and had re-established the Working Group of the Whole to evaluate the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82), under the chairmanship of Mr. Muhammad Nasim Shah (Pakistan).

23. The Committee noted with satisfaction that a number of reports related to the recommendations of UNISPACE 82 had been prepared in accordance with the recommendations of the Working Group of the Whole at its sixth session in 1992, as endorsed by the General Assembly in paragraph 11 of its resolution 47/67. The Committee also noted that further studies and reports would be prepared in accordance with the recommendations of the Working Group of the Whole at its seventh session, held in 1993.

24. The Committee noted that the Working Group of the Whole had reviewed the implementation of the recommendations of UNISPACE 82, had concluded that many of the recommendations were still not fully implemented and had made a number of recommendations concerning the further implementation of the recommendations of

the Conference. The Committee endorsed the recommendations of the Working Group of the Whole, as contained in its report (A/AC.105/543, annex II). The Committee noted the view of the Working Group that the budgetary allocations for the Programme on Space Applications for implementation of the recommendations of UNISPACE 82 had been meagre and inadequate in past years and that the Working Group had expressed its deep concern that the situation remained the same for the current year as well.

25. The Committee noted that the Special Political Committee of the General Assembly had acceded to the request of the Committee at its thirty-fifth session that the General Assembly make an adequate allocation for the Programme on Space Applications in order to fully implement the recommendations of UNISPACE 82, and that the Chairman of the Special Political Committee had conveyed that decision in a letter to the Chairman of the Fifth Committee of the General Assembly (A/C.5/47/51). On the recommendation of the Fifth Committee, the General Assembly, in resolution 47/219 of 23 December 1992, took note of the letter from the Chairman of the Special Political Committee. The Committee expressed its hopes that those recommendations and actions would be reflected in an adequate budget allocation for the Programme on Space Applications in the 1994-1995 budget.

26. The Committee recommended that the Working Group of the Whole should be reconvened during the next session of the Scientific and Technical Subcommittee to continue its work.

27. The Committee, while expressing its appreciation to all Governments that had made or had expressed their intention of making contributions for the implementation of the recommendations of UNISPACE 82, took note of the disappointment expressed by the developing countries at the lack of financial resources to implement those recommendations fully.

(b) United Nations Programme on Space Applications

28. At the outset of the Committee's deliberations on this item, the United Nations Expert on Space Applications of the Office for Outer Space Affairs reviewed the activities carried out and planned under the Programme on Space Applications during the period 1992-1994. The Committee expressed its appreciation to the Expert on Space Applications for the effective manner in which he had implemented the Programme within the limited funds at his disposal.

29. The Committee continued to express its concern over the limited financial resources available for carrying out the Programme and appealed to Member States to support the Programme through voluntary contributions. The Committee felt that the limited resources of the United Nations should be focused on the highest priority activities and noted that the Programme on Space Applications was the priority activity of the Office for Outer Space Affairs.

30. The Committee took note of the Programme on Space Applications, as set out in the report of the Subcommittee. The Committee was pleased to note that further progress was being made in the implementation of the Programme activities planned for 1993.

(i) United Nations workshops, training courses and seminars

31. As regards the United Nations workshops, training courses and seminars for 1993, the Committee expressed its appreciation to:

(a) The European Space Agency, for co-sponsoring the United Nations/ESA Training Course for African Francophone Countries on Applications of ERS-1 for Natural Resources, Renewable Energy and the Environment (19-30 April 1993);

(b) The Government of Sweden, for co-sponsoring the Third United Nations/Sweden Training Course on Remote Sensing Education for Educators (3 May-4 June 1993);

(c) The Government of Greece, for co-sponsoring the United Nations Workshop on Space Communications for Development (10-12 May 1993);

(d) The Government of Indonesia, for co-sponsoring the United Nations Regional Conference on Space Science and Technology (17-21 May 1993);

(e) The Government of Mexico, as well as ESA, for co-sponsoring the United Nations/Office of the United Nations Disaster Relief Coordinator (UNDRO)/ESA Workshop on Applications of Space Technology to Combat Natural Disasters (27 September-1 October 1993);

(f) The Government of Senegal, for co-sponsoring the United Nations Regional Conference on Africa's Environmental and Natural Resources Information and Management Needs (October 1993);

(g) The Government of Germany and the Carl Duisberg Society, Berlin, for co-sponsoring the Fifth United Nations Training Course on Remote Sensing Applications to Geological Sciences, to be held in Nepal (October 1993);

(h) The Government of Austria, IAF, ESA and the Commission of the European Communities, for co-sponsoring the United Nations/IAF/ESA Symposium on Organizing Space Activities in Developing Countries: Resources and Mechanisms (16-22 October 1993);

(i) The Government of Nigeria, for co-sponsoring the United Nations Workshop on Basic Space Science (18-22 October 1993).

32. The Committee also noted that a United Nations Workshop on the Use of Space Techniques for Monitoring and Control of the Desert Environment was planned for November 1993.

33. The Committee endorsed the programme of United Nations workshops, training courses and seminars proposed for 1994 as outlined by the United Nations Expert on Space Applications of the Office for Outer Space Affairs in his report (see A/AC.105/533, para. 43 (a)-(j)), and recommended those activities for approval by the General Assembly. The Committee noted the plans for the following activities:

(a) A United Nations International Workshop on Spin-off Benefits of Space Technology;

(b) The Fourth United Nations/Sweden International Training Course on Remote Sensing Education for Educators, to be hosted and co-sponsored by the Government of Sweden;

(c) A United Nations International Training Course on Communications for Development;

(d) A United Nations International Workshop on Remote Sensing Information Systems;

(e) A United Nations Microwave Remote Sensing Training Course for the benefit of Member States in the Economic and Social Commission for Asia and the Pacific (ESCAP) and Economic and Social Commission for Western Asia (ESCWA) regions, to be hosted and co-sponsored by the Government of China;

(f) A United Nations/UNDRO Regional Workshop on Space Technology to Combat Natural Disasters, for the benefit of Member States in the Economic Commission for Africa (ECA) region;

(g) A United Nations Training Course on Remote Sensing Applications to Geological Sciences for the benefit of Member States in the Economic Commission for Latin America and the Caribbean (ECLAC) region;

(h) A United Nations International Workshop on Basic Space Science in Development Programmes, for the benefit of ESCAP and ESCWA member States;

(i) A United Nations International Workshop on the Development and Design of Small Experimental Payloads, to be hosted and co-sponsored by the Government of Spain;

(j) A United Nations/IAF Symposium on Space Technology in Developing Countries.

34. The Committee also noted with appreciation the financial contributions of $20,000 from the Government of Austria, $30,000 from the Government of China, $7,000 from the Government of Greece, $15,000 from the Government of Pakistan, and $50,000 from ESA in support of the 1992 activities of the Programme on Space Applications, and the contributions of $15,000 from the Government of Pakistan and $85,000 from ESA in support of the 1993 activities. The Committee took note of other Member States which were planning to make contributions. The Committee noted with appreciation the provision of experts, as instructors and speakers in the activities of the Programme on Space Applications, by the host countries and other countries. The Committee also noted the financial and other assistance provided by ESA, FAO, the International Maritime Satellite Organization (INMARSAT), ITU and the Regional Centre for Services in Surveying, Mapping and Remote Sensing (RCSSMRS).

(ii) Long-range fellowships for in-depth training

35. The Committee expressed its appreciation to the Governments of Austria, Brazil and China, as well as to ESA, for offering fellowships through the United Nations in 1992-1993 and to the Governments of Brazil and China as well as to ESA, for renewing their offers of fellowships for 1993-1994.

(iii) Technical advisory services

36. The Committee noted that the Programme had provided or would provide the following technical advisory services: to the Government of Ecuador in studying the feasibility of establishing a multinational enterprise to operate the remote-sensing ground receiving station at Cotopaxi, Ecuador; to the Government of the Islamic Republic of Iran for the organization of a Seminar on Remote Sensing of the Environment and Earth Resources; to the Government of Nigeria for the organization of a National Seminar on Space Science and Technology; to the Government of Chile for the organization of the Second Space Conference of the Americas; and to Governments in the Asia-Pacific region in the Asia-Pacific Workshop on Multilateral Cooperation in Space Technology and Applications and in the establishment of the Asia-Pacific Satellite Communications Conference.

37. The Committee also noted that the Programme was continuing its collaboration with ESA in a follow-up of the United Nations/ESA International Space Year activity on the use of remote-sensing data being provided by ESA to four African countries covered by the receiving stations at Maspalomas, Canary Islands, Spain, and Fucino, Italy. The Committee further noted that the Programme was collaborating with ESA in reviewing the training needs of the participating African institutions.

(iv) Centres for space science and technology education

38. The Committee noted with satisfaction that a number of Member States in the ECA, ECLAC, ESCAP and ESCWA regions had expressed interest in hosting the proposed regional centres for space science and technology education, based on existing national or regional educational institutions in developing countries, to promote the development of indigenous capabilities. The Committee welcomed the report on the matter entitled "Centres for Space Science and Technology Education" (A/AC.105/534) and urged Member States to consider providing voluntary contributions to support that effort.

39. The Committee expressed its appreciation to the Governments of France and Germany for having sent experts to participate in an evaluation mission to potential host countries for a centre in Africa. The Committee noted that further evaluation missions were being planned.

(v) Promotion of greater cooperation in space science and technology

40. Regarding the promotion of greater cooperation in space science and technology, the Committee noted with satisfaction that the United Nations Programme on Space Applications was co-sponsoring the following activities:

(a) A symposium entitled "Organizing Space Activities in Developing Countries: Resources and Mechanisms", co-sponsored by IAF, to be held at Graz, Austria, immediately prior to the IAF Congress;

(b) Symposia and workshops in conjunction with the COSPAR and ISPRS meetings to be held in 1994 and 1996, respectively;

(c) The VIth Symposium on Remote Sensing and Geographic Information System Applications to the Environment organized by Sociedad de Especialistas

Latinoamericanos en Percepción Remota (SELPER), Cartagena de Indias, Colombia (3-8 October 1993).

(c) International space information service

41. With regard to the international space information service, the Committee noted with satisfaction the publication of the fourth volume of "Seminars of the United Nations Programme on Space Applications" (A/AC.105/532), containing selected papers from the seminars, workshops and training courses of the 1992 activities of the Programme on Space Applications; "Highlights in Space" (A/AC.105/522), based on annual reports prepared by COSPAR and IAF and submitted to the Scientific and Technical Subcommittee; and an updated edition of "Space Activities of the United Nations and International Organizations" (A/AC.105/521).

(d) Coordination of space activities within the United Nations system and inter-agency cooperation

42. With regard to coordination of outer space activities within the United Nations system and inter-agency cooperation, the Committee noted the request of the General Assembly, contained in its resolution 47/67, to all organs, organizations and bodies of the United Nations system to cooperate in the implementation of the recommendations of UNISPACE 82.

43. The Committee further noted with appreciation that the Scientific and Technical Subcommittee had continued to stress the necessity of ensuring continuous and effective consultations and coordination in the field of outer space activities among organizations within the United Nations system. The Committee noted with satisfaction that the fourteenth Ad Hoc Inter-Agency Meeting on Outer Space Activities had been held in 1992 (see ACC/1992/28) and that a report on the coordination of outer space activities within the United Nations system had been submitted to the Scientific and Technical Subcommittee (A/AC.105/524). The Committee also noted with appreciation that the 15th Inter-Agency Meeting on Outer Space Activities would be held in October 1993 at ITU headquarters in Geneva.

44. The Committee noted with appreciation the participation in all stages of its work and in that of its Subcommittee by representatives of United Nations bodies, the specialized agencies and other international organizations. The Committee found the reports submitted by those bodies helpful in enabling it and its subsidiary bodies to fulfil their role as a focal point for international cooperation in space, especially with respect to the practical applications of space science and technology in developing countries.

(e) Regional and interregional cooperation mechanisms

45. Regarding regional and interregional cooperation mechanisms, the Committee noted with satisfaction that, pursuant to General Assembly resolution 47/67, paragraph 15, and the recommendations of UNISPACE 82, the Secretariat had continued to seek to strengthen regional mechanisms of cooperation by organizing regional workshops and training courses as part of the United Nations Programme on Space Applications and by providing technical assistance to regional activities in Africa, Latin America and the Caribbean, and the Asia-Pacific

region, as well as by promoting the establishment of regional centres for space science and technology education.

46. The Committee noted the contributions made by other international organizations towards the implementation of the recommendations of UNISPACE 82. In particular, the Committee noted that FAO was continuing its activities relating to the remote sensing of renewable natural resources and environmental monitoring, including training courses and support of development projects; ITU was continuing its work on the international coordination of space communications and providing technical assistance to developing countries; INTELSAT was further developing its system for international satellite communications and broadcasting and providing assistance to developing countries in using the system; and COSPAR, IAF, ILA and ISPRS were continuing to promote international cooperation and exchange of information relating to space activities.

3. Matters relating to remote sensing of the Earth by satellites, including, inter alia, applications for developing countries

47. The Committee noted that, in accordance with General Assembly resolution 47/67, the Subcommittee had given priority consideration to matters relating to remote sensing of the Earth by satellites.

48. The Committee recognized the importance of continuing international efforts to ensure the continuity, compatibility and complementarity of systems for remote sensing of the Earth and to promote cooperation through regular meetings between satellite operators, ground station operators and users.

49. The Committee recognized the example of international cooperation given by the free distribution of meteorological information. All countries and agencies were urged to continue that practice. Some delegations also urged that similar arrangements should be made for the distribution of other remote-sensing information.

50. Some delegations expressed concern over the commercialization of remote-sensing activities and suggested that the prices of remote-sensing data products and access fees for data reception should be reduced significantly so as to make them affordable for the developing countries and to enable the latter to benefit fully from the use of remote-sensing technology.

51. The Committee endorsed the recommendation of the Subcommittee that, recalling General Assembly resolution 41/65 of 3 December 1986, by which the Assembly had adopted the Principles Relating to Remote Sensing of the Earth from Outer Space, it would continue, at its thirty-first session, its discussion on remote-sensing activities conducted in accordance with those Principles.

52. The Committee endorsed the recommendation of the Subcommittee that the item should be retained on its agenda as a priority item for the next session.

4. Use of nuclear power sources in outer space

53. The Committee noted that, in accordance with General Assembly resolution 47/67, the Scientific and Technical Subcommittee had reconvened the Working Group on the Use of Nuclear Power Sources in Outer Space to enable it to resume its work.

54. The Committee noted with satisfaction that, on the basis of many years of work in the Committee and its subcommittees, the General Assembly had adopted a set of Principles Relevant to the Use of Nuclear Power Sources in Outer Space, as contained in resolution 47/68 of 14 December 1992. The Committee also noted that the Principles provided that they should be reopened for revision by the Committee no later than two years after their adoption.

55. The Committee noted that the Subcommittee had adopted the report of the Working Group on the Use of Nuclear Power Sources in Outer Space as contained in annex III to the report of the Subcommittee (A/AC.105/543).

56. The Committee took note of the recommendation contained in resolution 47/67 that Member States be invited to report to the Secretary-General on a regular basis with regard to national and international research concerning the safety of nuclear-powered satellites and expressed its appreciation to those Member States that had submitted such information.

57. The Committee noted that working papers on safety aspects of nuclear power sources in space had been submitted to the Subcommittee by the United Kingdom (A/AC.105/C.1/L.187) and the Russian Federation (A/AC.105/C.1/L.188), and that a paper on risks and radiological consequences of debris collisions with nuclear power sources in space (S&T/1993/CRP.2) had been submitted by Pakistan.

58. The Committee endorsed the recommendation of the Subcommittee that Member States should continue to be invited to report to the Secretary-General on a regular basis with regard to national and international research concerning the safety of nuclear-powered satellites. The Committee further endorsed the recommendation that additional studies should be conducted on the problem of the collision of nuclear power sources with space debris and that the Subcommittee should be kept informed of the results of such studies.

59. Noting the need for early review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, the Committee recommended that the Scientific and Technical Subcommittee should reconvene the Working Group on nuclear power sources to give further consideration to the question.

60. The Committee endorsed the recommendation of the Subcommittee that it should continue consideration of the item at its next session.

5. Space transportation systems

61. The Committee noted that, in accordance with General Assembly resolution 47/67, the Subcommittee had continued consideration of the item relating to space transportation systems and their implications for future activities in space.

62. The Committee took note of the progress being achieved in the various programmes in operation or planned by China, India, Japan, Kazakhstan, the Russian Federation, Ukraine, the United Kingdom, the United States and ESA.

63. The Committee took note of developments in low-cost micro-satellite technology and applications that could allow more countries to take an active part in space activities.

64. The Committee stressed the importance of international cooperation in space transportation in order to provide all countries with access to the benefits of space science and technology.

65. The Committee endorsed the recommendation of the Subcommittee to continue consideration of the item at its next session.

6. Examination of the physical nature and technical attributes of the geostationary orbit; examination of its utilization and applications, including, inter alia, in the field of space communications, as well as other questions relating to space communications developments, taking particular account of the needs and interests of developing countries

66. The Committee noted that, in accordance with General Assembly resolution 47/67, the Subcommittee had continued consideration of the item relating to the geostationary orbit.

67. The Committee noted that delegations had reiterated and elaborated on the views concerning the question of the geostationary orbit that had been expressed at earlier sessions and reflected in earlier reports of the Committee and its two subcommittees.

68. The Committee expressed its appreciation to ITU for submitting its thirty-second annual progress report on telecommunications and the peaceful uses of outer space (A/AC.105/549). Some delegations, in their statements, stressed the important technical scope of the work of ITU, while drawing attention to the competence of the Committee on the Peaceful Uses of Outer Space in preparing policy decisions that refer to the geostationary orbit.

69. The Committee endorsed the recommendation of the Subcommittee that it should continue consideration of the item at its next session.

7. Matters relating to life sciences, including space medicine; progress in national and international space activities related to the Earth environment, in particular progress in the geosphere-biosphere (global change) programme; matters relating to planetary exploration; matters relating to astronomy

70. The Committee noted that, in accordance with General Assembly resolution 47/67, the Subcommittee had continued to consider the items concerning matters relating to life sciences, including space medicine; progress in national and international space activities related to the Earth environment, in particular progress in the geosphere-biosphere (global change) programme; matters relating to planetary exploration; and matters relating to astronomy.

71. The Committee noted with satisfaction the wide variety of space activities being undertaken in these areas and the extensive international cooperation in those activities. The Committee encouraged further cooperation in these areas, and in particular, further efforts to increase the participation of developing countries.

72. The Committee endorsed the recommendation of the Subcommittee to continue consideration of the item at its next session.

8. Themes fixed for special attention at the 1993 and 1994 sessions of the Scientific and Technical Subcommittee

73. The Committee noted that, in accordance with General Assembly resolution 47/67, the Subcommittee had considered the theme fixed for special attention at the 1993 session of the Scientific and Technical Subcommittee: "Space-based communication: the expansion of current services and increased understanding of new systems and the services they will make possible".

74. The Committee noted with satisfaction that, in accordance with General Assembly resolution 47/67, COSPAR and IAF had conducted a symposium on the theme. The Committee expressed its appreciation to COSPAR and IAF for their generous support of the work of the Subcommittee.

75. The Committee endorsed the recommendation of the Subcommittee that the new theme fixed for special attention at the 1994 session of the Subcommittee should be "Space applications for disaster prevention, warning, mitigation and relief". It also endorsed the recommendation of the Subcommittee that COSPAR and IAF, in liaison with Member States, should be invited to arrange a symposium on that theme, with as wide a participation as possible, to be held during the first week of the Subcommittee's session to complement discussions within the Subcommittee on the special theme.

76. The Committee had before it a summary of the scientific and technical presentations made during the thirtieth session of the Scientific and Technical Subcommittee (A/AC.105/546).

77. Some delegations, while recognizing the significance of the scientific and technical presentations to the Subcommittee, expressed the view that, as an

intergovernmental forum, the Subcommittee should give priority to discussing policies and guidelines for international cooperation in space activities and providing agreed technical parameters for the development of international space law.

9. Space and Earth environment

78. The Committee noted that the General Assembly, in its resolution 47/67, had recommended that more attention should be paid to all aspects related to the protection and the preservation of the outer space environment, especially those potentially affecting the Earth's environment. The 1992 United Nations Conference on Environment and Development had further indicated the need to pay more attention to that issue.

79. The Committee also noted that the General Assembly, in the same resolution, had considered that it was essential that Member States should pay more attention to the problem of collisions of space objects with space debris and other aspects related to space debris and had called for, among other things, the continuation of national research on the question. The General Assembly, in the same resolution, had also considered that space debris could be an appropriate subject for discussion by the Committee in the future.

80. The Committee agreed that there was a need for further research concerning space debris, for the development of improved technology for the monitoring of space debris and for the compilation and dissemination of data on space debris. The Committee also noted the importance of international cooperation in addressing those issues.

81. The Committee agreed that information on national research on space debris should, to the extent possible, be provided to the Subcommittee, in order to allow the Subcommittee to follow that area more closely. In that connection, the Committee took note of the information on national research submitted by Member States (A/AC.105/542 and Add.1 and 2) pursuant to the request of the Secretary-General.

82. (Paragraph on space debris to be added.)

83. The Committee noted the importance of satellite remote sensing for monitoring the Earth's environment, and in particular for studying and monitoring global change.

84. The Committee noted with interest the analytical report prepared by the Secretariat on the role that the Committee could play in view of the decisions and recommendations of the United Nations Conference on Environment and Development (A/AC.105/547) and agreed it could make an important contribution to the Committee's future work in this area.